

REMARKS/ARGUMENTS

Favorable reconsideration of the present application is respectfully requested.

Claims 1, 3, 4 and 9-11 have been allowed. Claim 12 remains rejected.

Claim 12 has been amended to clarify that the control means stops the engine automatically at a time after a preset allowance time has passed after the operation state detecting means has detected that the operating means is in a non-working state, and the access state detecting means detects the getting-off of the operator at said time after a preset allowance time has passed. Basis for this is evident from steps S5 and S6 in Fig. 2 and the description at page 9, lines 9-23. That is, after the operation state detecting means has detected at step S1 that the operating means is in a non-working state, the engine is stopped at step S12 if it is determined, at the time after the preset allowance time T2 has passed, that the gate lever has opened. Any opening of the gate lever during the allowance time T2 will not cause the engine to automatically shut down, so that the driver can temporarily leave the construction machine without the engine stopping. It is only when the claimed “getting-off” conditions exist after the predetermined time – indicating an intention to stop working – that the engine is automatically shut down. This avoids unintentional engine shut-downs resulting from the operator momentarily leaving the machine, which would require burdensome restarts.

Claim 12 was rejected under 35 U.S.C. § 103 as being obvious over Loraas et al in view of Perry. This rejection is respectfully traversed in view of the present amendment.

As already explained, Loraas et al discloses a construction machine having an operator presence sensor which renders the lift arm and drive mechanism to be inoperable when the operator moves out of an operating position. Under normal operating conditions, optical sensors and a seat bar sensor 66 provide signals to a controller 86 indicating that the seat is occupied, and the unlock drive mechanism 82 is unlocked to allow movement and

manipulation of the power actuator (column 6, lines 18-39). Conversely, if the controller has not received a signal from the optical sensors indicating that the seat is occupied, and has not received a signal that the seat bar sensor 66 is lowered, it locks the traction lockout mechanism 78 and hydraulic lockout mechanism 80 (column 6, lines 40-46).

According to the Office Action, although Loraas et al simply locks out hydraulic operation and does not stop the engine, engine shutdown would have been obvious in view of Perry. However, even in this case, neither reference teaches shutting down the engine when an access state detecting means detects the getting-off of the operator at a time after a preset allowance time has passed since an operating means enters a non-working state.

Loraas et al will lock out hydraulic operation any time that the operator presence is not detected. Therefore, if the engine were instead automatically shut down in Loraas et al, this would occur whenever the operator momentarily leaves his seat, resulting in annoying frequent automatic shut-downs. Thus, Loraas et al does not teach the claimed feature of taking an action, whether it be locking out hydraulic operation or shutting down the engine, only if the getting-off of the operator after a preset allowance time has passed is also detected.

Perry is concerned with excess idling time when the driver's seat of a delivery truck is not occupied. Therefore, Perry inputs a signal from the driver's seat switch 16 to the reset terminal R of the counter circuit 58. The reset terminal R receives a low signal when the seat is not occupied and counts a preset time before shutting down the engine (col. 6, lines 27-35). The driver's return to his seat will cause the seat switch 16 to issue a high signal to the reset terminal R, to reset the counter circuit.

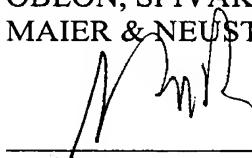
Perry has been relied upon to teach shutting down an engine upon the lapse of a predetermined time "after selected sensed input conditions are detected." However, it is noted that the detected "input condition" in Perry is the signal from the seat switch 16, i.e., a

signal indicative of “getting-on or getting-off of an operator.” Thus the teaching of Perry is to shut down an engine at a time after a preset allowance time has passed after an access state detecting means detects the getting-off of the operator. This is the *inverse* of the inventive feature of shutting down the engine if the getting-off of the operator is detected at a time after a preset allowance time has passed since the “input conditions.” Accordingly, Perry does not supply the missing teaching of shutting down an engine when an access state detecting means detects the getting-off of the operator at a time after a preset allowance time has passed after an operation state detecting means has detected that the operating means is in a non-working state, and so no combination of this prior art would teach the claimed invention.

Applicants believe that the present application is in a condition for allowance and respectfully solicit an early Notice of Allowability.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.



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Robert T. Pous  
Registration No. 29,099  
Attorney of Record

Customer Number  
**22850**

Tel: (703) 413-3000  
Fax: (703) 413 -2220  
(OSMMN 08/07)